Chevron

October 13, 1998

Chevron Products Company
6001 Bollinger Canyon Road
Building L, Room 1110
PO Box 6004
San Ramon, CA 94583-0904

Philip R. Briggs
Project Manager
Site Assessment & Remediation
Phone 925 842-9136
Fax 925 842-8370

Mr. Larry Seto
Alameda County Health Care Services
Department of Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Re: Former Chevron Service Station #9-0100
2428 Central Avenue, Alameda, California

Dear Mr. Seto:

Enclosed is a copy of the Semi-Annual Groundwater Monitoring Report 1998 (Third Quarter), that was prepared by our consultant Gettler-Ryan Inc. for the above noted site. Groundwater samples were analyzed for TPH-g, BTEX, and MtBE constituents.

The benzene constituent in monitoring well MW-1 decreased, while increasing slightly in well MW-2 from the previous sampling event. In monitoring wells MW-3, MW-4, MW-5 and MW-6, the concentrations of all the constituents were below method detection limits.

Note that ORC was introduced into monitoring wells MW-1 and MW-2 on May 21, 1998. The introduction of ORC was to enhance the natural attenuation process in and around these wells.

Also note that wells MW-1 and MW-2 were initially sampled on September 16, 1998 without purging, which was to maintain the presence of dissolved oxygen that had been increasing due to the introduction of ORC. However, you requested on September 23, 1998, that these wells be purged and than sampled. On September 26, 1998, both of these wells were resampled. There was a corresponding reduction in the concentration of dissolved oxygen due to the purging of the wells (see Table 2).

Ground water depth varied from 6.72 feet to 8.20 feet below grade with the direction of flow northwesterly.

As previous noted and discussed, this site has been under review for closer by your department and you were waiting to receive this Semi-Annual Report before forwarding the closer request to the Regional Board. Chevron believes that no data in this Report change the findings submitted in the RBCA and Addendum. Therefore, Chevron requests that the site be submitted to the Regional Board for closer.

The next sampling event is scheduled in March 1999, however, Chevron will hold any future sampling due to the proposed submittal of this site for closer. If you have any questions or comments, call me at (925) 842-9136.

Sincerely,
CHEVRON PRODUCTS COMPANY

Philip R. Briggs
Site Assessment and Remediation Project Manager

Enclosure

Cc. Ms. Bette Owen, Chevron

Mr. Robert Stahl
Stahl-Woolridge Investment Properties
2428 Central Avenue
Alameda, CA 94501

GETTLER-RYAN INC.

October 9, 1998 Job #5178.80

Mr. Phil Briggs
Chevron Products Company
P.O. Box 6004
San Ramon, CA 94583

Re: Semi-Annual 1998 Groundwater Monitoring & Sampling Report
Former Chevron Service Station #9-0100
2428 Central Avenue
Alameda, CA

Dear Mr. Briggs:

This report documents the semi-annual groundwater monitoring and sampling event performed by Gettler-Ryan Inc. (G-R). On September 16, 1998, field personnel were on-site to monitor and sample six wells (MW-1 through MW-6) at the above mentioned site. Wells MW-1 and MW-2 were not purged prior to collecton of samples. On September 26, 1998, field personnel returned to the site to monitor, purge and resample wells MW-1 and MW-2.

Static groundwater levels were measured and the wells were checked for the presence of separate-phase hydrocarbons. Separate-phase hydrocarbons were not present in any of the wells during both events. Static water level data and groundwater elevations are presented in Table 1. Dissolved Oxygen Concentrations are presented in Table 2. A Potentiometric Map is included as Figure 1.

Groundwater samples were collected from the monitoring wells as specified by G-R Standard Operating Procedure - Groundwater Sampling (attached). The field data sheets for this event are also attached. The samples were analyzed by Sequoia Analytical. Results are presented in Table 1. The chain of custody document and laboratory analytical reports are attached.

Thank you for allowing Gettler-Ryan Inc. to provide environmental services to Chevron. Please call if you have any questions or comments regarding this report.

Sincerely,

Deanna L. Harding
Project Coordinator

Barbara Sieminski
Project Geologist, R.G. No. 6676

REGISTERED GEOLOGIST
BARBARA SIEMINSKI
No. 6676
STATE OF CALIFORNIA

DLH/PLS/dlh
5178.QML

Figure 1:	Potentiometric Map
Table 1:	Water Level Data and Groundwater Analytical Results
Table 2:	Dissolved Oxygen Concentrations
Attachments:	Standard Operating Procedure - Groundwater Sampling
	Field Data Sheets
	Chain of Custody Document and Laboratory Analytical Reports

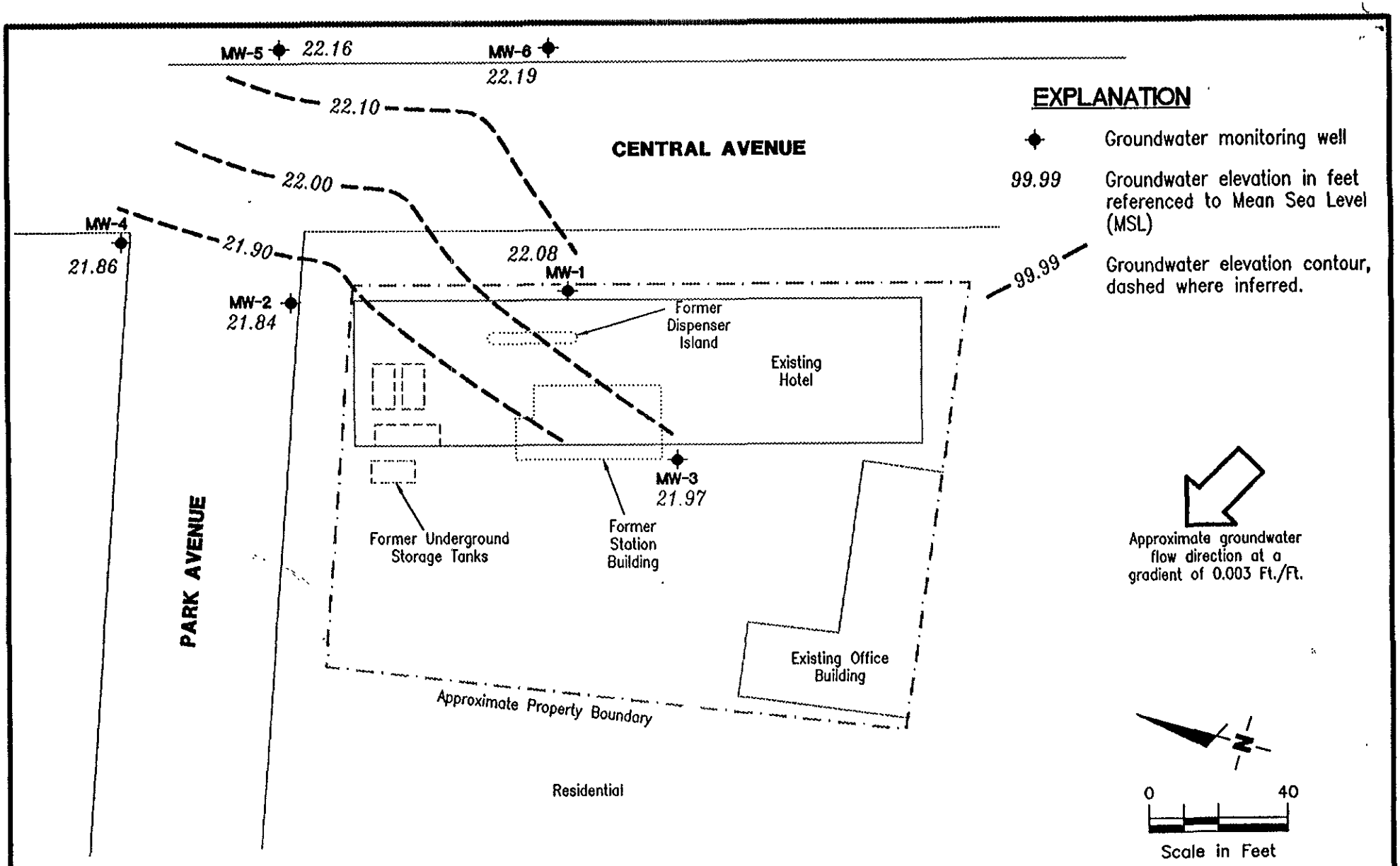

FIGURE 1

Gettler - Ryan Inc.

6747 Sierra Ct., Suite J
Dublin, CA 94568
(925) 551-7555

POTENTIOMETRIC MAP
Former Chevron Service Station No. 9-0100
2428 Central Avenue
Alameda, California

JOB NUMBER	REVIEWED BY	DATE	REVISED DATE
5178		September 16, 1998	

Table 1. Water Level Data and Groundwater Analytical Results - Former Chevron Service Station #9-0100, 2428 Central Avenue, Alameda, California

Well ID/ TOC (ft)	Date	DTW (ft)	GWE (msl)	Product Thickness* (ft)	TPH(G)	B	T	E	X	MTBE
					<----------ppb---------->					
MW-1/	3/10/94[1,2]	6.79	22.44	0	7,400	120	120	33	72	---
29.23	6/21/94	7.74	21.49	0	5,300	140	60	21	43	---
	9/26/94	8.94	20.29	0	9,500	<250[5]	<250[5]	<250[5]	<250[5]	---
	12/16/94	6.57	22.66	0	4,700	<0.5	46	15	48	---
	3/22/95	5.16	24.07	0	8,800	55	14	11	<10	---
	6/13/95	5.84	23.39	0	2,100	130	29	9.5	15	---
	9/15/95	7.65	21.58	0	8,100	110	26	6.0	13	---
	3/8/96	5.36	23.87	0	5,600	250	<5.0	<5.0	<5.0	60
29.25**	9/3/96	8.03	21.22	0	7,600	270	5.6	3.4	4.9	120
	3/5/97	5.33	23.92	0	5,000	130	5.2	3.7	5.7	31
	9/30/97	8.86	20.39	0	3,500	53	2.4	2.8	6.4	26
	3/31/98	4.38	24.87	0	2,200	210	<5.0	<5.0	14	60
	◆ 5/21/98	---	---	---	---	---	---	---	---	---
	9/16/98[6]	**7.17**	**22.08**	**0**	**1,200[7]**	**94**	**<0.50**	**<0.50**	**<0.50**	**<2.5**
	9/26/98	**7.30**	**21.95**	**0**	**1,400**	**75**	**<1.0**	**1.1**	**2.2**	**<5.0**
MW-2/	3/10/94[2,3]	6.94	22.24	0	6,400	<5	64	58	17	---
29.18	6/21/94	7.89	21.29	0	1,800	23	12	6.9	32	---
	9/26/94	8.98	20.20	0	8,400	<100[5]	<100[5]	<100[5]	<100[5]	---
	12/16/94	6.65	22.53	0	2,300	<0.5	29	8.9	33	---
	3/22/95	5.15	24.03	0	1,500	0.6	4.5	<0.5	2.5	---
	6/13/95	6.06	23.12	0	880	<0.5	<0.5	2.2	10	---
	9/15/95	7.72	21.46	0	2,700	<0.5	17	4.8	13	---
	3/8/96	5.38	23.80	0	1,300	42	2.0	0.7	2.2	10
29.19**	9/3/96	8.14	21.05	0	2,700	64	4.6	1.6	4.6	35
	3/5/97	5.43	23.76	0	1,200	25	3.0	<0.5	3.6	<5.0
	9/30/97	9.01	20.18	0	2,400	12	1.0	1.4	5.8	6.9
	3/31/98	4.66	24.53	0	490	12	1.2	<1.0	1.2	<5.0
	◆ 5/21/98	---	---	---	---	---	---	---	---	---
	9/16/98[6]	**7.35**	**21.84**	**0**	**820**	**44**	**9.4**	**1.8**	**5.1**	**23**
	9/26/98	**8.20**	**20.99**	**0**	**610[8]**	**18**	**0.58**	**<0.50**	**1.1**	**10**
MW-3/	3/10/94[2,4]	7.30	22.79	0	<50	<0.5	<0.5	<0.5	<0.5	---
30.09	6/21/94	8.53	21.56	0	<50	<0.5	<0.5	<0.5	<0.5	---
	9/26/94	9.80	20.29	0	<50	<0.5	<0.5	<0.5	<0.5	---
	12/16/94	7.11	22.98	0	<50	<0.5	<0.5	<0.5	<0.5	---
	3/22/95	5.54	24.55	0	<50	<0.5	<0.5	<0.5	<0.5	---
	6/13/95	6.48	23.61	0	<50	<0.5	<0.5	<0.5	<0.5	---
	9/15/95	8.40	21.69	0	<50	<0.5	<0.5	<0.5	<0.5	---
	3/8/96	5.69	24.40	0	<50	<0.5	<0.5	<0.5	<0.5	<5.0
30.10**	9/3/96	8.80	21.30	0	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	3/5/97	5.89	24.21	0	<50	<0.5	<0.5	<0.5	<0.5	<5.0

Table 1. Water Level Data and Groundwater Analytical Results - Former Chevron Service Station #9-0100, 2428 Central Avenue, Alameda, California (continued)

Well ID/ TOC (ft)	Date	DTW (ft)	GWE (msl)	Product Thickness* (ft)	TPH(G)	B	T	E	X	MTBE
					<----------ppb---------->					
MW-3	9/30/97	9.68	20.42	0	<50	<0.5	<0.5	<0.5	<0.5	<5.0
(cont)	3/31/98	4.87	25.23	0	<50	<0.50	<0.50	<0.50	<0.50	<2.5
	9/16/98	**8.13**	**21.97**	**0**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<2.5**
MW-4										
29.31**	9/3/96	8.32	20.99	0	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	3/5/97	5.80	23.51	0	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	9/30/97	9.18	20.13	0	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	3/31/98	4.87	24.44	0	<50	<0.50	<0.50	<0.50	<0.50	<2.5
	9/16/98	**7.45**	**21.86**	**0**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<2.5**
MW-5										
28.88**	9/3/96	7.90	20.98	0	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	3/5/97	5.70	23.18	0	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	9/30/97	8.73	20.15	0	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	3/31/98	4.89	23.99	0	<50	<0.50	<0.50	<0.50	<0.50	<2.5
	9/16/98	**6.72**	**22.16**	**0**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<2.5**
MW-6										
29.24**	9/3/96	7.98	21.26	0	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	3/5/97	5.61	23.63	0	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	9/30/97	8.88	20.36	0	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	3/31/98	5.07	24.17	0	<50	<0.50	<0.50	<0.50	<0.50	<2.5
	9/16/98	**7.05**	**22.19**	**0**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<2.5**
Trip Blank	3/10/94	---	---	---	<50	<0.5	0.7	<0.5	<0.5	---
TB-LB	6/21/94	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	---
	9/26/94	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	---
	12/16/94	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	---
	3/22/95	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	---
	6/13/95	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	---
	9/15/95	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	---
	3/8/96	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	9/3/96	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	3/5/97	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	9/30/97	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	3/31/98	---	---	---	<50	<0.50	<0.50	<0.50	<0.50	<2.5
	9/16/98	**---**	**---**	**---**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<2.5**
	9/26/98	**---**	**---**	**---**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<2.5**

Table 1. Water Level Data and Groundwater Analytical Results - Former Chevron Service Station #9-0100, 2428 Central Avenue, Alameda, California (continued)

EXPLANATION:

TOC = Top of casing elevation
(ft) = feet
DTW = Depth to water
GWE = Groundwater elevation
msl = Measurements referenced relative to mean sea level
TPH(G) = Total Purgeable Petroleum Hydrocarbons as Gasoline
TPH(D) = Total Petroleum Hydrocarbons as Diesel
B = Benzene
T = Toluene
E = Ethylbenzene
X = Xylenes
MTBE = Methyl tertiary butyl ether
EDB = Ethylene Dibromide
ppb = Parts per billion
--- = Not analyzed/Not applicable
◆ = ORC installed in well.

ANALYTICAL METHODS:

EPA Method 8015/5030 for TPPH(G)
EPA Method 8020 for BTEX & MTBE

NOTES:

Water level elevation data and laboratory analytic results prior to March 22, 1995, were compiled from Quarterly Monitoring Reports prepared for Chevron by Sierra Environmental Services.

* Product thickness was measured on and after June 21,1994 with a MMC Flexi-Dip interface probe.

** Wells MW-1 through MW-6 were surveyed on September 17, 1996, by Virgil Chavez of Vallejo, California (PLS #6323).

[1] TPH(D) was also analyzed and detected at 840 ppb. However, chromatogram does not match typical diesel pattern.

[2] Organic lead and EDB were also analyzed but not detected at detection limits of 4 and 0.02 ppb, respectively.

[3] TPH(D) was also analyzed and detected at 920 ppb. However, chromatogram does not match typical diesel pattern.

[4] TPH(D) was also analyzed but not detected at detection limits of 50 ppb.

[5] Detection limits raised due to the dilution required by a high amount of foaming in the sample.

[6] No purge sampling.

[7] Laboratory report indicates unidentified hydrocarbons C6-C12.

[8] Laboratory report indicates gasoline and unidentified hydrocarbons C6-C12.

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Table 2. Dissolved Oxygen Concentrations - Former Chevron Service Station #9-0100, 2428 Central Avenue, Alameda, California

Well ID	Date	Depth to Water (ft)	Dissolved Oxygen (mg/L)
MW-1	05/21/98*	--	0.83
	09/16/98	**7.17**	**4.25**
	09/26/98[1]	**7.30**	**2.30**
MW-2	05/21/98*	--	0.38
	09/16/98	**7.35**	**2.00**
	09/26/98[1]	**8.20**	**1.32**

NOTES:

* ORC installed in well.
-- Not measured
mg/L = milligrams per liter

[1] Dissolved Oxygen reading taken prior to purge of well.

5178-2.dor

STANDARD OPERATING PROCEDURE - GROUNDWATER SAMPLING

Gettler-Ryan Inc. field personnel adhere to the following procedures for the collection and handling of groundwater samples prior to analysis by the analytical laboratory. Prior to sample collection, the type of analysis to be performed is determined. Loss prevention of volatile compounds is controlled and sample preservation for subsequent analysis is maintained.

Prior to sampling, the presence or absence of free-phase hydrocarbons is determined using a MMC flexi-dip interface probe. Product thickness, if present, is measured to the nearest 0.01 foot and is noted in the field notes. In addition, static water level measurements are collected with the interface probe and are also recorded in the field notes.

After water levels are collected and prior to sampling, each well is purged a minimum of three well casing volumes of water using pre-cleaned pumps (stack, suction, Grundfos), or polyvinyl chloride bailers. Temperature, pH and electrical conductivity are measured a minimum of three times during the purging. Purging continues until these parameters stabilize.

Groundwater samples are collected using Chevron-designated disposable bailers. The water samples are transferred from the bailer into appropriate containers. Pre-preserved containers, supplied by analytical laboratories, are used when possible. When pre-preserved containers are not available, the laboratory is instructed to preserve the sample as appropriate. Duplicate samples are collected for the laboratory to use in maintaining quality assurance/quality control standards. The samples are labeled to include the job number, sample identification, collection date and time, analysis, preservation (if any), and the sample collector's initials. The water samples are placed in a cooler, maintained at 4°C for transport to the laboratory. Once collected in the field, all samples are maintained under chain of custody until delivered to the laboratory.

The chain of custody document includes the job number, type of preservation, if any, analysis requested, sample identification, date and time collected, and the sample collector's name. The chain of custody is signed and dated (including time of transfer) by each person who receives or surrenders the samples, beginning with the field personnel and ending with the laboratory personnel.

A laboratory supplied trip blank accompanies each sampling set. For sampling sets greater than 20 samples, 5% trip blanks are included. The trip blank is analyzed for some or all of the same compounds as the groundwater samples.

As requested by Chevron Products Company, the purge water and decontamination water generated during sampling activities is transported by IWM to McKittrick Waste Management located in McKittrick, California.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Chevron Facility # 9-0100 Job#: 5178.80

Address: 2428 Central Avenue Date: 9-16-9E

City: Alameda, CA Sampler: F.Cline

Well ID MW- 1 Well Condition: Okay

Well Diameter 2" in. Hydrocarbon Thickness: 0 in. Amount Bailed (product/water): 0 (gal.)

Total Depth ft.

Depth to Water 7.17 ft.

Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66	6" = 1.50	12" = 5.80

_____ X VF _____ = _____ X 3 (case volume) = Estimated Purge Volume: _____ (gal.)

Purge Equipment: Disposable Bailer; Bailer; Stack; Suction; Grundfos; Other: _____

Sampling Equipment: (Disposable Bailer); ~~Bailer~~; Pressure Bailer; Grab Sample; Other: _____

Starting Time: _____ Weather Conditions: clear warm

Sampling Time: 1337 Water Color: Clear Odor: Mild

Purging Flow Rate: _____ gpm. Sediment Description: Mic

Did well de-water? _____ If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity µmhos/cm	Temperature °C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
1337	0	7.36	384	19.8	4.25 ~~7.37~~	-21.4	

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-	3 x 40m/VOA	Y	HCL	~~NET/OTEL~~ SEQUOIA	TPH-Gas/BTEX/MTBE

COMMENTS: ORC in well No Purge -

9/97-fieldat.frm

WELL MONITORING/SAMPLING
FIELD DATA SHEET

Chevron Facility # 9-0100 Job#: 5178.80

Address: 2428 Central Avenue Date: 9-16-98

City: Alameda, CA Sampler: F.Cline

Well ID MW-2 Well Condition: okay

Well Diameter 2" in. Hydrocarbon Thickness: C in. Amount Bailed (product/water): C (gal.)

Total Depth 23.75 ft.

Depth to Water 7.35 ft.

Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66
	6" = 1.50	12" = 5.80	

_____ X VF 0.17 = _____ X 3 (case volume) = Estimated Purge Volume: _____ (gal.)

Purge Equipment:
- Disposable Bailer
- Bailer
- (Stack)
- Suction
- Grundfos
- Other: _____

Sampling Equipment:
- (Disposable Bailer)
- Bailer
- Pressure Bailer
- Grab Sample
- Other: _____

Starting Time: _____ Weather Conditions: Clear Warm

Sampling Time: _____ Water Color: Clear Odor: None

Purging Flow Rate: _____ gpm Sediment Description: Non.

Did well de-water? _____ If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity µmhos/cm	Temperature °C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
1320	0	6.92	733	18.2	2.00	4.4	

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-2	3 x 40m/VOA	Y	HCL	~~NET/GTEL~~ SEQUOIA	TPH-Gas/BTEX/MTBE

COMMENTS: ORC in well

No purge!

WELL MONITORING/SAMPLING FIELD DATA SHEET

Chevron Facility # 9-0100 Job#: 5178.80

Address: 2428 Central Avenue Date: 9-16-9E

City: Alameda, CA Sampler: F.Cline

Well ID MW-3 Well Condition: okay

Well Diameter 2" in. Hydrocarbon Thickness: C in. Amount Bailed (product/water): C (gal.)

Total Depth 24,5 ft.

Depth to Water 8,13 ft.

Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66
	6" = 1.50	12" = 5.80	

16,37 X VF 0,17 = 28 X 3 (case volume) = Estimated Purge Volume: 84 (gal.)

Purge Equipment:
- Disposable Bailer
- Bailer
- (Stack)
- ~~Suction~~
- Grundfos
- Other:

Sampling Equipment:
- (Disposable Bailer)
- Bailer
- Pressure Bailer
- Grab Sample
- Other:

Starting Time: 1307 Weather Conditions: Clear warm

Sampling Time: 1315 Water Color: clear Odor: None

Purging Flow Rate: 1,5 gpm. Sediment Description: None

Did well de-water? If yes; Time: Volume: (gal.)

Time	Volume (gal.)	pH	Conductivity µmhos/cm	Temperature °C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
1309	3	6,72	486	20,9			
1311	6	6,81	504	20,9			
1313	9	6,86	478	20,2			
1315	10	6,84	480	20,4	1,12		

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-3	3 x 40m/VOA	Y	HCL	~~NET/OTEL~~ SEQUOIA	TPH-Gas/BTEX/MTBE

COMMENTS:

WELL MONITORING/SAMPLING FIELD DATA SHEET

Chevron Facility # 9-0100 Job#: 5178.80

Address: 2428 Central Avenue Date: 9-16-98

City: Alameda, CA Sampler: F.Cline

Well ID MW- 4 Well Condition: okay

Well Diameter 2" in. Hydrocarbon Thickness: C in. Amount Bailed (product/water): C (gal.)

Total Depth 20.0 ft.

Depth to Water 7.45 ft.

Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66
	6" = 1.50	12" = 5.80	

12.55 X VF 0.17 = 2.14 X 3 (case volume) = Estimated Purge Volume: 6.4 (gal.)

Purge Equipment: Disposable Bailer; Bailer; (Stack); Suction; Grundfos; Other: _____

Sampling Equipment: (Disposable Bailer); ~~Bailer~~; Pressure Bailer; Grab Sample; Other: _____

Starting Time: 1253 Weather Conditions: Clear warm

Sampling Time: 1300 Water Color: Clear Odor: None

Purging Flow Rate: 1.2 gpm. Sediment Description: Mc

Did well de-water? No If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity µmhos/cm	Temperature °C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
1255	2.4	6.66	312	21.9			
1257	4.8	6.66	365	21.5			
1259	7.2	6.80	380	21.8			
1301	9.6	6.67	369	21.5			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW- 4	3 x 40m/VOA	Y	HCL	~~NEI/OTEL~~ SEQUOIA	TPH-Gas/BTEX/MTBE

COMMENTS: _____

9/97-fieldat.frm

WELL MONITORING/SAMPLING
FIELD DATA SHEET

Chevron Facility # 9-0100 Job#: 5178.80

Address: 2428 Central Avenue Date: 9-16-9E

City: Alameda, CA Sampler: F Cline

Well ID MW-5 Well Condition: clay

Well Diameter 2" in. Hydrocarbon Thickness: C in. Amount Bailed (product/water): C (gal.)

Total Depth 21 ft.

Depth to Water 6.12 ft.

Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66
	6" = 1.50	12" = 5.80	

14.88 x (VF) 0.17 = 2.4 X 3 (case volume) = Estimated Purge Volume: 7.2 (gal.)

Purge Equipment:
Disposable Bailer
Bailer
(Stack)
~~Suction~~
Grundfos
Other:

Sampling Equipment:
(Disposable Bailer)
~~Bailer~~
Pressure Bailer
Grab Sample
Other:

Starting Time: 12:36 Weather Conditions: clear warm

Sampling Time: 1241 Water Color: clear Odor: slight

Purging Flow Rate: 1.2 gpm Sediment Description: nil

Did well de-water? If yes; Time: Volume: (gal.)

Time	Volume (gal.)	pH	Conductivity µmhos/cm	Temperature °C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
1238	2.4	6.94	576	23.3			
1240	4.8	6.91	636	22.7			
1242	7.2	6.92	638	22.4			
1244	8.0	6.92	637	22.5			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-5	3 x 40m/VOA	Y	HCL	~~NET/OTEL~~ SEQUOIA	TPH-Gas/BTEX/MTBE

COMMENTS:

WELL MONITORING/SAMPLING FIELD DATA SHEET

Chevron Facility # 9-0100 Job#: 5178.80

Address: 2428 Central Avenue Date: 9-16-98

City: Alameda, CA Sampler: F.Cline

Well ID MW-6 Well Condition: clay

Well Diameter 2" in. Hydrocarbon Thickness: e in. Amount Bailed (product/water): e (gal.)

Total Depth 21 ft.

Depth to Water 7.05 ft.

Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66
	6" = 1.50	12" = 5.80	

13.95 X VF 0.17 = 2.4 X 3 (case volume) = Estimated Purge Volume: 7.2 (gal.)

Purge Equipment: Disposable Bailer; Bailer; (Stack); Suction; Grundfos; Other:

Sampling Equipment: (Disposable Bailer); ~~Bailer~~; Pressure Bailer; Grab Sample; Other:

Starting Time: 1221 Weather Conditions: clear warm

Sampling Time: 1229 Water Color: clear Odor: None

Purging Flow Rate: 1.2 gpm. Sediment Description: None

Did well de-water? N/C If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity µmhos/cm	Temperature °C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
1223	2.4	7.05	416	22.1			
1225	4.8	7.35	416	21.2			
1227	7.2	7.25	417	21.2			
1229	8.6	7.26	415	21.3			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-6	3 x 40m/VOA	Y	HCL	~~NET/OTEL~~ SEQUOIA	TPH-Gas/BTEX/MTBE

COMMENTS:

9/97-fieldat.frm

WELL MONITORING/SAMPLING FIELD DATA SHEET

Chevron Facility # 9-0100 Job#: 5178.80

Address: 2428 Central Avenue Date: 9-26-96

City: Alameda, CA Sampler: F. Cline

Well ID MW-1 Well Condition: Clear

Well Diameter 2" in. Hydrocarbon Thickness: 0 in. Amount Bailed (product/water): 0 (gal.)

Total Depth 24.7 ft.

Depth to Water 7.30 ft.

Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66
	6" = 1.50	12" = 5.80	

17.4 X VF 0.17 = 2.9 X 3 (case volume) = Estimated Purge Volume: 8.87 (gal.)

Purge Equipment: Disposable Bailer; Bailer; (Stack); ~~Suction~~; Grundfos; Other:

Sampling Equipment: (Disposable Bailer); ~~Bailer~~; Pressure Bailer; Grab Sample; Other:

Starting Time: 1046 Weather Conditions: cloudy cool

Sampling Time: 1054 Water Color: clear Odor: none

Purging Flow Rate: 1.5 gpm. Sediment Description: none

Did well de-water? Yes; If yes; Time: Volume: (gal.)

Time	Volume (gal.)	pH	Conductivity µmhos/cm	Temperature °C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
1048	3	8.21	430	18.9	2.30		
1050	6	8.51	439	18.7	1.85		
1052	9	8.42	416	18.6	1.86		
1054	10	8.44	418	18.7	1.90		

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-1	3 x 40m/VOA	Y	HCL	~~NET/GTEL~~ SEQUOIA	TPH-Gas/BTEX/MTBE

COMMENTS: ORC removed & replaced.

9/97-fieldst.frm

WELL MONITORING/SAMPLING FIELD DATA SHEET

Chevron Facility # 9-0100 Job#: 5178.80

Address: 2428 Central Avenue Date: 9-26-96

City: Alameda, CA Sampler: F. Cline

Well ID MW- 2 Well Condition: okay

Well Diameter 2" in. Hydrocarbon Thickness: 0 in. Amount Bailed (product/water): 0 (gal.)

Total Depth 23.75 ft.

Depth to Water 8.20 ft.

Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66
	6" = 1.50	12" = 5.80	

15.55 X VF 0.17 = 2.6 X 3 (case volume) = Estimated Purge Volume: 7.91 (gal.)

Purge Equipment: Disposable Bailer; Bailer; (Stack); Suction; Grundfos; Other:

Sampling Equipment: (Disposable Bailer); ~~Bailer~~; Pressure Bailer; Grab Sample; Other:

Starting Time: 1028 Weather Conditions: Cloudy cool

Sampling Time: 1036 Water Color: clear Odor: Na

Purging Flow Rate: 1.4 gpm. Sediment Description: NC

Did well de-water? If yes; Time: Volume: (gal.)

Time	Volume (gal.)	pH	Conductivity µmhos/cm	Temperature °C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
1030	2.8	6.73	801	20.9	1.32		
1032	5.6	6.74	857	20.4	1.53		
1034	8.4	6.80	655	20.6	1.06		
1036	9.6	6.78	656	20.7	1.12		

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW- 2	3 x 40m/VOA	Y	HCL	~~NEI/CTEL~~ SEQUOIA	TPH-Gas/BTEX/MTBE

COMMENTS: OPC Removed & replaced

9/97-fieldat.frm

Fax copy of Lab Report and COC to Chevron Contact: ☐ No

Chain-of-Custody-Reco

Chevron U.S.A. Inc.
P.O. BOX 5004
San Ramon, CA 94583
FAX (415)842-9591

Chevron Facility Number #9-0100
Facility Address 2428 CENTRAL AVENUE, ALAMEDA, CA
Consultant Project Number 5178
Consultant Name Gettler-Ryan
Address 6747 Sierra Ct, Ste J, Dublin 94568
Project Contact (Name) Deanna Harding
(Phone) 551-7555 (Fax Number) 551-7888

SAME DAY CHARGE

Chevron Contact (Name) Mr. Phil Briggs
(Phone) (510) 842-9136
Laboratory Name SEQUOIA Service Code: ZZ02790
Laboratory Service Order # 9144488
Samples Collected by (Name) F. Cline
Collection Date 9-16-98
Signature

9809B26

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil W = Water A = Air C = Charcoal	Type G = Grab C = Composite D = Discrete	Time	Sample Preservation	Iced (Yes or No)	TPH Gas + BTEX w/MTBE (8015)	TPH Diesel (8015)	Oil and Grease (5520)	Purgeable Halocarbons (8010)	Purgeable Aromatics (8020)	Purgeable Organics (8240)	Extractable Organics (8270)	Metals Cd,Cr,Pb,Zn,Ni (ICAP or AA)					DO NOT BILL TB-LB ANALYSI Remarks
TB-LB	1	2	W	TB	—	HCl	Y	X												
MW-6	2	3		G	1229			X												
MW-5	3				1244			X												
MW-4	4				1301			X												
MW-3	5				1315			X												
MW-2	6				1320			X												
MW-1	7				1327			X												

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time	Turn Around Time (Circle Choice)
	G-R Inc.	9-17-98/0800		G-R Inc.	9-17-98 0800	24 Hrs.
Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time	48 Hrs.
	G-R INC.	9-17-98 0200		Seq.	9/17/98 1454	5 Days
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature)		Date/Time	10 Days
	Seq.	9/17/98			9/17/98 1815	As Contracted

3.DWG/03 91/mCH

Sequoia Analytical

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1455 McDowell Blvd. North, Ste. D, Petaluma, CA 94954, (707) 792-1865, FAX (707) 792-0342

Gettler Ryan/Geostrategies	Client Proj. ID: Chevron 9-0100, Alameda	Sampled: 09/16/98
6747 Sierra Court Suite J	Sample Descript: TB-LB	Received: 09/17/98
Dublin, CA 94568	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 09/22/98
Attention: Deanna Harding	Lab Number: 9809B26-01	Reported: 09/29/98

QC Batch Number: GC092298802005A
Instrument ID: HP5

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	96

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1271

Mike Gregory
Project Manager

Sequoia Analytical

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Gettler Ryan/Geostrategies	Client Proj. ID: Chevron 9-0100, Alameda	Sampled: 09/16/98
6747 Sierra Court Suite J	Sample Descript: MW-1	Received: 09/17/98
Dublin, CA 94568	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 09/23/98
Attention: Deanna Harding	Lab Number: 9809B26-07	Reported: 09/29/98

QC Batch Number: GC092398802004A
Instrument ID: HP4

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**50**	**1200**
Methyl t-Butyl Ether	2.5	N.D.
Benzene	**0.50**	**94**
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		
Unidentified HC		**C6-C12**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	121

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1271

Mike Gregory
Project Manager

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Gettler Ryan/Geostrategies	Client Proj. ID: Chevron 9-0100, Alameda	Sampled: 09/16/98
6747 Sierra Court Suite J	Sample Descript: MW-2	Received: 09/17/98
Dublin, CA 94568	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 09/22/98
Attention: Deanna Harding	Lab Number: 9809B26-06	Reported: 09/29/98

QC Batch Number: GC092298802005A
Instrument ID: HP5

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	100	820
Methyl t-Butyl Ether	5.0	23
Benzene	1.0	44
Toluene	1.0	9.4
Ethyl Benzene	1.0	1.8
Xylenes (Total)	1.0	5.1
Chromatogram Pattern:		GAS

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	77

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1271

Mike Gregory
Project Manager

Sequoia Analytical

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Gettler Ryan/Geostrategies	Client Proj. ID: Chevron 9-0100, Alameda	Sampled: 09/16/98
6747 Sierra Court Suite J	Sample Descript: MW-3	Received: 09/17/98
Dublin, CA 94568	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 09/22/98
Attention: Deanna Harding	Lab Number: 9809B26-05	Reported: 09/29/98

QC Batch Number: GC092298802005A
Instrument ID: HP5

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	112

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1271

Mike Gregory
Project Manager

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Gettler Ryan/Geostrategies	Client Proj. ID: Chevron 9-0100, Alameda	Sampled: 09/16/98
6747 Sierra Court Suite J	Sample Descript: MW-4	Received: 09/17/98
Dublin, CA 94568	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 09/22/98
Attention: Deanna Harding	Lab Number: 9809B26-04	Reported: 09/29/98

QC Batch Number: GC092298802005A
Instrument ID: HP5

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	125

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1271

Mike Gregory
Project Manager

Sequoia Analytical

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Gettler Ryan/Geostrategies	Client Proj. ID: Chevron 9-0100, Alameda	Sampled: 09/16/98
6747 Sierra Court Suite J	Sample Descript: MW-5	Received: 09/17/98
Dublin, CA 94568	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 09/22/98
Attention: Deanna Harding	Lab Number: 9809B26-03	Reported: 09/29/98

QC Batch Number: GC092298802005A
Instrument ID: HP5

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	105

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1271

Mike Gregory
Project Manager

Sequoia Analytical

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Gettler Ryan/Geostrategies	Client Proj. ID: Chevron 9-0100, Alameda	Sampled: 09/16/98
6747 Sierra Court Suite J	Sample Descript: MW-6	Received: 09/17/98
Dublin, CA 94568	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 09/22/98
Attention: Deanna Harding	Lab Number: 9809B26-02	Reported: 09/29/98

QC Batch Number: GC092298802005A
Instrument ID: HP5

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	100

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1271

Mike Gregory
Project Manager

Fax copy of Lab Report and COC to Chevron Contact: ☐ No

Chain-of-Custody-Record

98-09-425

Chevron U.S.A. Inc.
P.O. BOX 5004
San Ramon, CA 94583
FAX (415)842-9591

Chevron Facility Number #9-0100
Facility Address 2428 CENTRAL AVENUE, ALAMEDA, CA
Consultant Project Number 5178
Consultant Name Gettler-Ryan
Address 6747 Sierra Ct, Ste J, Dublin 94568
Project Contact (Name) Deanna Harding
(Phone) 551-7555 (Fax Number) 551-7888

Chevron Contact (Name) Mr. Phil Briggs
(Phone) (510) 842-9136
Laboratory Name NET/GTEL Service Code: ZZ02790
Laboratory Service Order #9033105
Samples Collected by (Name) F. Cline
Collection Date 9-26-98
Signature [signature]

Analyses To Be Performed

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil A = Air W = Water C = Charcoal	Type G = Grab C = Composite D = Discrete	Time	Sample Preservation	Iced (Yes or No)	TPH Gas + BTEX w/MTBE (8015) (8020)	TPH Diesel (8015)	Oil and Grease (5520)	Purgeable Halocarbons (8010)	Purgeable Aromatics (8020)	Purgeable Organics (8240)	Extractable Organics (8270)	Metals Cd,Cr,Pb,Zn,Ni (ICAP or AA)						Remarks
TB-LB		2	W	TB	—	HCl	Y	X													
MW-2		3	↓	G	1036	↓	↓	X													
MW-1		3	↓	G	1054	↓	↓	X													

Remarks: DO NOT BILL TB-LB ANALYSIS
[redacted]

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
[signature]	G-R Inc.	9-28-98/0800	D. Hardin	G-R Inc.	9/28/98
D. Hardin	G-R	9/28/98	[signature]	Sequoia	9/28/98 1511
[signature]	Sequoia	9/28/98	Received For Laboratory By (Signature) [signature]		9-28-98 1715

Turn Around Time (Circle Choice)
24 Hrs.
48 Hrs.
5 Days (circled)
10 Days
As Contracted

Sequoia Analytical

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1455 McDowell Blvd. North, Ste. D, Petaluma, CA 94954, (707) 792-1865, FAX (707) 792-0342

Gettler Ryan/Geostrategies	Client Proj. ID: Chevron 9-0100, Alameda	Sampled: 09/26/98
6747 Sierra Court Suite J	Sample Descript: TB#1	Received: 09/28/98
Dublin, CA 94568	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 09/30/98
Attention: Deanna Harding	Lab Number: 9809H25-01	Reported: 10/06/98

QC Batch Number: GC093098BTEX30A
Instrument ID: GCHP30

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	75

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Mike Gregory
Project Manager

Sequoia Analytical

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Gettler Ryan/Geostrategies	Client Proj. ID: Chevron 9-0100, Alameda	Sampled: 09/26/98
6747 Sierra Court Suite J	Sample Descript: MW-1	Received: 09/28/98
Dublin, CA 94568	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 09/30/98
Attention: Deanna Harding	Lab Number: 9809H25-03	Reported: 10/06/98

QC Batch Number: GC093098BTEX03A
Instrument ID: GCHP03

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**100**	**1400**
Methyl t-Butyl Ether	5.0	N.D.
Benzene	**1.0**	**75**
Toluene	1.0	N.D.
Ethyl Benzene	**1.0**	**1.1**
Xylenes (Total)	**1.0**	**2.2**
Chromatogram Pattern:		**GAS**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	76

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Mike Gregory
Project Manager

Sequoia Analytical

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Gettler Ryan/Geostrategies	Client Proj. ID: Chevron 9-0100, Alameda	Sampled: 09/26/98
6747 Sierra Court Suite J	Sample Descript: MW-2	Received: 09/28/98
Dublin, CA 94568	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 09/29/98
Attention: Deanna Harding	Lab Number: 9809H25-02	Reported: 10/06/98

QC Batch Number: GC092998BTEX03A
Instrument ID: GCHP03

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**50**	**610**
Methyl t-Butyl Ether	**2.5**	**10**
Benzene	**0.50**	**18**
Toluene	**0.50**	**0.58**
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	**0.50**	**1.1**
Chromatogram Pattern:		
Gas & Unidentified HC		**C6-C12**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	83

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Mike Gregory
Project Manager

Sequoia Analytical

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Gettler Ryan/Geostrategies	Client Proj. ID: Chevron 9-0100, Alameda	Received: 09/17/98
6747 Sierra Court Suite J		
Dublin, CA 94568	Lab Proj. ID: 9809B26	Reported: 09/29/98
Attention: Deanna Harding		

LABORATORY NARRATIVE

In order to properly interpret this report, it must be reproduced in its entirety. This report contains a total of 11 pages including the laboratory narrative, sample results, quality control, and related documents as required (cover page, COC, raw data, etc.).

TPH-GAS/BTEX:
Sample 9809B26-06 was diluted 2-fold.

SEQUOIA ANALYTICAL

Mike Gregory
Project Manager

Sequoia Analytical

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Gettler Ryan/Geostrategies	Client Proj. ID: Chevron 9-0100, Alameda	Received: 09/28/98
6747 Sierra Court Suite J		
Dublin, CA 94568	Lab Proj. ID: 9809H25	Reported: 10/06/98
Attention: Deanna Harding		

LABORATORY NARRATIVE

In order to properly interpret this report, it must be reproduced in its entirety. This report contains a total of 8 pages including the laboratory narrative, sample results, quality control, and related documents as required (cover page, COC, raw data, etc.).

TPH-GAS/BTEX:
Sample 9809H25-03 was diluted 2-fold.

SEQUOIA ANALYTICAL

Mike Gregory
Project Manager

Sequoia Analytical

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Gettler Ryan/Geostrategies
6747 Sierra Court, Ste J
Dublin, CA 94568
Attention: Deanna Harding

Client Project ID: Chevron 9-0100, Alameda
Matrix: Liquid
Work Order #: 9809B26 -01-06
Reported: Sep 30, 1998

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	BTEX as TPH
QC Batch#:	GC092298802005A	GC092298802005A	GC092298802005A	GC092298802005A	GC092298802005A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015M
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	D. Newcomb	D. Newcomb	D. Newcomb	D. Newcomb	D. Newcomb
MS/MSD #:	8091655	8091655	8091655	8091655	8091655
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	9/22/98	9/22/98	9/22/98	9/22/98	9/22/98
Analyzed Date:	9/22/98	9/22/98	9/22/98	9/22/98	9/22/98
Instrument I.D.#:	HP5	HP5	HP5	HP5	HP5
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	240 µg/L
Result:	17	18	18	57	220
MS % Recovery:	85	90	90	95	92
Dup. Result:	18	18	18	59	230
MSD % Recov.:	90	90	90	98	96
RPD:	5.7	0.0	0.0	3.4	4.4
RPD Limit:	0-20	0-20	0-20	0-20	0-50
LCS #:	LCS092298	LCS092298	LCS092298	LCS092298	LCS092298
Prepared Date:	9/22/98	9/22/98	9/22/98	9/22/98	9/22/98
Analyzed Date:	9/22/98	9/22/98	9/22/98	9/22/98	9/22/98
Instrument I.D.#:	HP5	HP5	HP5	HP5	HP5
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	240 µg/L
LCS Result:	19	20	20	62	230
LCS % Recov.:	95	100	100	103	96
MS/MSD	60-140	60-140	60-140	60-140	
LCS	70-130	70-130	70-130	70-130	60-140
Control Limits					

SEQUOIA ANALYTICAL
Elap #1271

Mike Gregory
Project Manager

Please Note:
The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

** MS=Matrix Spike, MSD=MS Duplicate, RPD=Relative % Difference

Sequoia Analytical

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Gettler Ryan/Geostrategies	Client Project ID:	Chevron 9-0100, Alameda	
6747 Sierra Court, Ste J	Matrix:	Liquid	
Dublin, CA 94568			
Attention: Deanna Harding	Work Order #:	9809B26-07	Reported: Sep 30, 1998

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	BTEX as TPH
QC Batch#:	GC092398802004A	GC092398802004A	GC092398802004A	GC092398802004A	GC092398802004A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015M
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	J. Minkel	J. Minkel	J. Minkel	J. Minkel	J. Minkel
MS/MSD #:	8091792	8091792	8091792	8091792	8091792
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	9/23/98	9/23/98	9/23/98	9/23/98	9/23/98
Analyzed Date:	9/23/98	9/23/98	9/23/98	9/23/98	9/23/98
Instrument I.D.#:	HP4	HP4	HP4	HP4	HP4
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	280 µg/L
Result:	19	21	21	66	280
MS % Recovery:	95	105	105	110	100
Dup. Result:	20	21	22	68	310
MSD % Recov.:	100	105	110	113	111
RPD:	5.1	0.0	4.7	3.0	10.2
RPD Limit:	0-20	0-20	0-20	0-20	0-50
LCS #:	LCS092398	LCS092398	LCS092398	LCS092398	LCS092398
Prepared Date:	9/23/98	9/23/98	9/23/98	9/23/98	9/23/98
Analyzed Date:	9/23/98	9/23/98	9/23/98	9/23/98	9/23/98
Instrument I.D.#:	HP4	HP4	HP4	HP4	HP4
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	280 µg/L
LCS Result:	17	19	19	60	270
LCS % Recov.:	85	95	95	100	96
MS/MSD Control Limits	60-140	60-140	60-140	60-140	
LCS Control Limits	70-130	70-130	70-130	70-130	60-140

SEQUOIA ANALYTICAL
Elap #1271

Mike Gregory
Project Manager

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** MS=Matrix Spike, MSD=MS Duplicate, RPD=Relative % Difference

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Gettler Ryan/Geostrategies
6747 Sierra Court, Suite J
Dublin, CA 94568
Attention: Deanna Harding

Client Project ID: Chevron 9-0100, Alameda

QC Sample Group: 9809H25-01

Reported: Oct 6, 1998

QUALITY CONTROL DATA REPORT

Matrix:	Liquid			
Method:	EPA 8020			
Analyst:	GR			
ANALYTE	Benzene	Toluene	Ethylbenzene	Xylenes
QC Batch #:	GC093098BTEX30A			
Sample No.:	GW9809D59-1			
Date Prepared:	9/30/98	9/30/98	9/30/98	9/30/98
Date Analyzed:	9/30/98	9/30/98	9/30/98	9/30/98
Instrument I.D.#:	GCHP30	GCHP30	GCHP30	GCHP30
Sample Conc., ug/L:	N.D.	N.D.	N.D.	N.D.
Conc. Spiked, ug/L:	10	10	10	30
Matrix Spike, ug/L:	9.2	9.3	9.5	28
% Recovery:	92	93	95	95
Matrix Spike Duplicate, ug/L:	8.7	9.0	9.2	27
% Recovery:	87	90	92	90
Relative % Difference:	5.6	3.3	3.2	5.4
RPD Control Limits:	0-25	0-25	0-25	0-25

LCS Batch#:	GWLCS093098A			
Date Prepared:	9/30/98	9/30/98	9/30/98	9/30/98
Date Analyzed:	9/30/98	9/30/98	9/30/98	9/30/98
Instrument I.D.#:	GCHP30	GCHP30	GCHP30	GCHP30
Conc. Spiked, ug/L:	10	10	10	30
LCS Recovery, ug/L:	9.0	9.2	9.4	28
LCS % Recovery:	90	92	94	94

Percent Recovery Control Limits:

MS/MSD	60-140	60-140	60-140	60-140
LCS	70-130	70-130	70-130	70-130

Quality Assurance Statement: All standard operating procedures and quality control requirements have been met.

SEQUOIA ANALYTICAL

Peggy Penner
Project Manager

Please Note:
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Gettler Ryan/Geostrategies
6747 Sierra Court, Suite J
Dublin, CA 94568
Attention: Deanna Harding

Client Project ID: Chevron 9-0100, Alameda

QC Sample Group: 9809H25-02

Reported: Oct 6, 1998

QUALITY CONTROL DATA REPORT

Matrix:	Liquid			
Method:	EPA 8020			
Analyst:	N.C.			
ANALYTE	Benzene	Toluene	Ethylbenzene	Xylenes
QC Batch #:	GC092998BTEX03A			
Sample No.:	GW9809943-2			
Date Prepared:	9/29/98	9/29/98	9/29/98	9/29/98
Date Analyzed:	9/29/98	9/29/98	9/29/98	9/29/98
Instrument I.D.#:	GCHP03	GCHP03	GCHP03	GCHP03
Sample Conc., ug/L:	N.D.	N.D.	N.D.	N.D.
Conc. Spiked, ug/L:	10	10	10	30
Matrix Spike, ug/L:	9.5	9.4	9.6	29
% Recovery:	95	94	96	97
Matrix Spike Duplicate, ug/L:	8.9	8.7	8.8	27
% Recovery:	89	87	88	90
Relative % Difference:	6.5	7.7	8.7	7.5
RPD Control Limits:	0-25	0-25	0-25	0-25

LCS Batch#:	GWLCS092998A			
Date Prepared:	9/29/98	9/29/98	9/29/98	9/29/98
Date Analyzed:	9/29/98	9/29/98	9/29/98	9/29/98
Instrument I.D.#:	GCHP03	GCHP03	GCHP03	GCHP03
Conc. Spiked, ug/L:	10	10	10	30
LCS Recovery, ug/L:	10	10	11	32
LCS % Recovery:	100	100	110	107

Percent Recovery Control Limits:

MS/MSD	60-140	60-140	60-140	60-140
LCS	70-130	70-130	70-130	70-130

Quality Assurance Statement: All standard operating procedures and quality control requirements have been met.

Please Note:
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SEQUOIA ANALYTICAL

Peggy Penner
Project Manager

Sequoia Analytical

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Gettler Ryan/Geostrategies
6747 Sierra Court, Suite J
Dublin, CA 94568
Attention: Deanna Harding

Client Project ID: Chevron 9-0100, Alameda

QC Sample Group: 9809H25-03

Reported: Oct 6, 1998

QUALITY CONTROL DATA REPORT

Matrix:	Liquid
Method:	EPA 8015
Analyst:	N.C.
ANALYTE	Gasoline

QC Batch #: GC093098BTEX03A

Sample No.:	GW9809E94-1
Date Prepared:	9/30/98
Date Analyzed:	9/30/98
Instrument I.D.#:	GCHP03
Sample Conc., ug/L:	N.D.
Conc. Spiked, ug/L:	250
Matrix Spike, ug/L:	220
% Recovery:	86
Matrix Spike Duplicate, ug/L:	220
% Recovery:	87
Relative % Difference:	1.2
RPD Control Limits:	0-25

LCS Batch#: GWLCS093098A

Date Prepared:	9/30/98
Date Analyzed:	9/30/98
Instrument I.D.#:	GCHP03
Conc. Spiked, ug/L:	250
LCS Recovery, ug/L:	220
LCS % Recovery:	88

Percent Recovery Control Limits:

MS/MSD	60-140
LCS	70-130

Quality Assurance Statement: All standard operating procedures and quality control requirements have been met.

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SEQUOIA ANALYTICAL

Peggy Penner
Project Manager